

ABSTRACT

According to one exemplary embodiment, a method for forming a contact over a silicide layer situated in a semiconductor die comprises a step of depositing a barrier layer on sidewalls of a contact hole and on a native oxide layer situated at a bottom of the contact hole, where the sidewalls are defined by the contact hole in a dielectric layer. The step of depositing the barrier layer on the sidewalls of the contact hole and on the native oxide layer can be optimized such that the barrier layer has a greater thickness at a top of the contact hole than a thickness at the bottom of the contact hole.

According to this exemplary embodiment, the method further comprises a step of removing a portion of the barrier layer and the native oxide layer situated at the bottom of the contact hole to expose the silicide layer.

**Figure 1 should accompany the Abstract.**